THE

HISTORY

OF

DES MOINES COUNTY,

IOWA,

CONTAINING

A History of the County, its Cities, Towns, &c.,

A Biographical Directory of Citizens, War Record of its Volunteers in the late Rebellion, General and Local Statistics, Portraits of Early Settlers and Prominent Men, History of the Northwest, History of Iowa, Map of Des Moines County, Constitution of the United States, Miscellaneous Matters, &c.

ILLUSTRATED.

CHICAGO:
WESTERN HISTORICAL COMPANY.
1879.

POLICE COURT.

The Police Court was established March 4, 1875, when the city abandoned her special charter and became a city of the first class. The jurisdiction of this court embraces all misdemeanors of a criminal nature within the city limits. A. H. Stutsman, the first Judge of the Burlington Police Court, was succeeded January 9, 1878, by H. O. Browning, the present occupant of the Police Judge's chair.

CITY BUILDINGS.

The old Market-house, located on the corner of Fifth and Valley streets, is used by the city for its offices, and is occupied by Mayor A. G. Adams, Treasurer O. H. Schenck, Auditor and Clerk J. W. Burdette, Marshal J. N. Martin, Engineer C. P. De Haas, Chief of Police T. J. Raper, Police Court Clerk W. H. Root, Police Judge H. O. Browning. The City Council chamber, the Central Station of the Fire Department, the Police Court and Police Station are also located in this building. The Weighmaster occupies a small office built on the same lot as the City Building. The other city officials have their headquarters wherever it best suits their convenience. The annual financial statement of the city for the fiscal year ending March, 1879, will be more favorable than the last one, and will show a decrease of the city debt as well as a reduction of expenses.

SEWERAGE.

The sewerage system proposed by the City Engineer, C. P. De Haas, for adoption by the City Council is as follows: One large sewer on South street to drain all of the city south of Pine street, and constitute District No. 1, District No. 2 to be between Pine and Cedar streets. District No. 3 will be drained by sewers on Angular street, and will provide for all the water south of Maple street. District No. 4 to be laid on Division street, and will provide for water between Maple and Division streets. District No. 5 to have main sewer laid on Valley street, and to receive all water north of Valley street. No action was taken on the matter, except in two instances. One sewer was built on Valley and one on Market street. All sewers over two feet will be constructed of stone or brick; all under that measure, will be made of tiling.

The ordinance providing for their construction will be that all sewers costing $3 or less per running foot, shall be paid for by the property-owners adjacent to the improvements; all sewers costing more shall be paid for from the general sewerage fund. All sewers will be laid low enough to drain all cellars, and catch basins will be placed at street-corners to receive surface-water from the street-gutters. The Valley street sewer built by contractors Swindler and Cain, under supervision of their foreman, E. D. Burke, was completed in 1878. It has a total length of 1,700 feet, is ten by eleven feet in the clear, constructed of stone laid in cement, and is located to receive all the water from Hawk-Eye Creek. Its cost was about $25,000, and it was built in six months. The discharging capacity of this sewer is 31,729,320 gallons per hour, and it empties in the Mississippi River at the foot of Valley street.

THE BURLINGTON WATER COMPANY.

Until the 1st of June, 1878, the city of Burlington was sorely perplexed over the problem of how to supply itself with water. The Mississippi River ran by its feet, but so far as the solution of the question went, it was of no more practical value than were the cool springs of New England. The difficulty lay in the utilization of the good gifts which nature had so tantaliz-

ingly placed just out of reach. How the matter was regarded by the business men of Burlington, and how the vexing subject was finally disposed of with eminent success, was graphically told in the *Hawk-Eye* of June 1, 1878. With no further credit, we proceed to clip liberally from that extended account of the triumph over obstacles.

June 1, 1878, was a gala day in Burlington. It was the crowning triumph of an effort to obtain a water-supply for the city that dates back nearly a decade of years. The problem was not an easy one to solve. It is true, water in lavish abundance flows past the city. The supply is not only inexhaustible, but the quality is superior to that furnished many American cities. The great river, with its rapid current and immense volume of water flowing down over the rock, gravel and sand that line its bed and send the water in eddying currents over and about its sand-bars, is freed from organic impurities, and is surcharged with the oxygen that accomplishes its purification. There was the water in all its plenitude and purity, but it swept unheedingly onward, and left the ambitious "metropolis of Iowa" athirst and unprotected. For while it was possible for the crude water-cart to supply, in a small way, the domestic necessities of the people, and sprinkle a few streets at a disproportionate cost for the result obtained, these primeval appliances afforded no protection against that dreaded enemy of all ages—the devouring flames. Progress in building up the city was checked by this deficiency in the protection of property. Capital shrank from investment where so great risks were incurred. This environment of peril fed upon the commerce, trade and industry of the city, for it not only discouraged the improvement of property, but it taxed the property-owner with high rates of insurance.

But the citizens of Burlington had faith in the future of the city. They had an abiding faith that the Flint Hills, pierced by nine lines of railway and crowned with so many substantial evidences of an enduring progress, were yet destined to witness the triumph of man over every natural obstacle that stood between the city and its future growth. From the water-level to the elevated plateau, that marked the beginning of the fertile stretch of prairie lands toward the west, is an elevation of about two hundred feet. To force water to that height, and then distribute it with sufficient head to meet the requirement of every householder, was a difficult problem, and one which troubled not a little every thoughtful citizen. At first glance it appeared simple enough; for, surely, where there are hills there can be built great reservoirs into which water may be pumped and left to distribute itself to consumers by the volition of its own gravity. But as a matter of fact *there are no hills in Burlington!* "A hill," says Noah Webster, LL. D., "is a natural elevation of land, or a mass of earth rising above the common level of the surrounding land." No such condition of things exists at Burlington. As the prairie land approaches the west bank of the Mississippi, streams of water, in past ages, have cut deep channels in the land in their descent to the river, and the numerous ravines thus formed are still affected by the washing-away of the soil in each storm that continues the labors of the centuries past. At the foot of several of these ravines that converge near the center of the present city of Burlington, there landed from their skiffs, forty-seven years ago, the first white men who undertook to settle in the lands of the Fox and Sac Indians. As the town grew, it gradually filled up the semi-circular basin formed by the convergence of the various ravines until men began to penetrate these natural thoroughfares to the table-lands above, and building improvements, in time filled the openings and dotted the upper plains. And naturally to the ascending settlers, the rugged bluffs, when

viewed from the lower plateau, assumed the character of "hills," and to this day they are known as such, until "North Hill," "West Hill," "South Hill," and "Prospect Hill," are popular terms for denoting the sections of the city not located on the lower level. And it was only natural that in the earlier days the popular estimate of the future system of water works should embrace a reservoir—the city was located mainly at the foot of the bluffs. But as the city grew, and nearly all the best residence property, and not a little of business property, is now to be found on the upper elevations, it is obvious that the reservoir system grows every year more impracticable. However reluctantly our citizens have relinquished their favored idea, recent surveys and careful investigations have removed all doubt and convinced them that a system of direct pressure is an imperative necessity. For while a reservoir might be constructed, at a large expense, on the highest elevation in the city, it still would fail to supply water any higher than the first stories of thousands of buildings, and would entirely fail to meet the requirements of reliable protection from fire. There was, therefore, no other practical solution of the problem but a system of direct pressure which would furnish all the water required for domestic and general consumption, and which would also afford the very best fire protection wherever the street mains extended. The tests fully justify the wisdom of the Burlington Water Company in adopting what is known as the Holly system of water works. The Holly system of water works has been adopted and is in use in more than seventy towns and cities in the United States. This number does not include some twenty or more works built on the same or similar plan by other parties than the Holly Company. The chief advantages of this system over the older systems are: 1. Secures by variable pressure a more reliable supply of water for all purposes. 2. Less cost for construction. 3. Less cost for maintenance. 4. Less cost for daily supply. 5. Affords the best fire protection in the world. 6. Largely reduces insurance risks and premiums. 7. Dispenses with fire-engines in whole or in part. 8. Reduces fire department expenses. All the tests made thus far in Burlington fully substantiate these claims, as we shall more fully show farther on in this article.

The history of the attempt to build water works in this city is a history full of doubt and unproductive effort, prior to the organization of the present company. Several ordinances were passed and companies organized, but the obstacles, both natural and human, always intervened and thwarted every attempt. Finally, on the 17th of July, 1877, the present water ordinance was adopted by a unanimous vote of the Council—one member only being absent, out of the city. To meet the requirements of this ordinance, the BURLINGTON WATER COMPANY was organized, with a capital stock of $300,000. The following is a list of the original stockholders: Hon. Charles Mason, Hon. John H. Gear, Hon. John Patterson, T. W. Barhydt, James C. McKell, R. Spencer, J. Darling, John G. Foote, S. E. Barnes, J. J. Burnham, H. H. Scott, E. M. Eisfeld, George Sweny, Thomas Hedge, Donahue & McCosh, William Salter, H. I. Chapman, T. W. Newman, J. Kroft, P. T. Smith—all residents of Burlington. Directors, Hon. Charles Mason, R. Spencer, Hon. John Patterson, James C. McKell, T. W. Barhydt. Officers, Hon. Charles Mason, President; Hon. John Patterson, Vice President; James C. McKell, Secretary and Treasurer; Hydraulic Engineer, T. N. Boutelle; Chief Engineer at the Water Works, Ira Holly; First Assistant, Charles Hood; Second Assistant, M. J. Haddox.

On the 19th of July, President Mason formerly notified the city authorities that the Burlington Water Company accepted the water ordinance, and on the

4th day of October, a contract was entered into between the city of Burlington and the Burlington Water Company, granting the latter the right to build and operate water works in Burlington. The details of the ordinance are too lengthy to be summarized in this article; but it is proper to say, in brief, that the terms are believed to be favorable for the city, without being oppressive to the water company, and that the result will be, that the citizens will obtain water at as low rates as the citizens of any other city in Iowa, and that Burlington will have the very best fire protection and water for public uses at a comparatively low cost, besides creating a sinking fund, that will ultimately result in the city obtaining the ownership of the water works at first cost. The Articles of Incorporation were filed for record in the Recorder's office, July 19, and with the Secretary of State, August 15, 1877. Those gentlemen who subscribed to the capital stock of the company, to the amount of $300,000, are personally liable in that amount for the indebtedness or misfortunes of the water company, and yet they are limited in the profits to be derived from this heavy liability, to the dividend of 12 per cent upon $30,000 of the stock, as the ordinance prohibits their paying up more than 10 per cent of the capital stock. Any excess of profit over that amount ($3,600 per annum) goes into the "water fund" with the water tax and water revenues, to be appropriated, at the discretion of the City Council, to extend the mains, or reduce the water tax, or to increase the sinking fund, or to reduce the water rates to private consumers. The interests of tax-payers and water-consumers are carefully provided for, and the stockholders have a limit on their profits that is quite disproportionate to the risks incurred.

On the 4th of October, 1877, a contract was made between the Burlington Water Company and the city of Burlington, whereby the former was to supply the city with water for fire and other purposes. As a compensation for the city service, the city levies a 5-mill tax on all property within the water district. The contract was signed by Henry H. Scott, Chairman of the Finance Committee for the city, and by Hon. Charles Mason, President of the Company.

A contract was executed October 6, 1877, between the Burlington Water Co. and the Holly Manufacturing Co., of Lockport, N. Y., in the sum of $190,000 for the complete erection of water works on the Holly system. Active operations were begun as soon as materials could be obtained. The grounds were purchased of Lyman Cook and George C. Lauman, in consideration of $5. The laying of the inlet pipe and crib was done by Mr. Truman Cowell, of Muscatine. The work was done in a first-class manner, although the contractor was greatly troubled by the quicksand on which the coffer-dam was built. The work was completed in time, and was the first subcontract finished. The contract for building the filter-bed and the buildings was given to Mr. A. W. Manning, of this city. The work on this contract was prosecuted during the winter, but few days being lost. The laying of the street mains was done by Messrs. Russell & Alexander, of Chicago. Nearly thirteen miles of pipes were laid be these contractors and put through the severest kind of a test without a break or a leaky or imperfect joint being found on the line. Their contract was finished two months and a half before the time stipulated. The pipes for the works were furnished by Dennis Long & Co., of Louisville, Ky., and H. R. Smith & Co., of Columbus, Ohio. The Mohawk & Hudson Manufacturing Co., of Waterford, N. Y., furnished the Eddy valves. The quality of the material furnished was such that on the trial, at extreme pressure, but three breaks were found on the entire line. These were defects that could not have been foreseen. In many trials in other cities as many

breaks have been found in one mile. These pipes were delivered during the winter, and were handled roughly in loading and unloading them from the cars, and the fact that so few breaks were discovered speaks much in praise of the manufacturers. The general superintendence of the whole contract was under the direction of Mr. T. N. Boutelle, the Engineer of the Burlington Water Co. Mr. Boutelle is a civil engineer of large experience in the construction of water works. He has been connected with the erection of water works in Anamosa, Clinton, Marshalltown and other cities in Iowa, and in many other cities in adjoining States. He drew up the plans for the Burlington works and directed their entire construction. The ability he displayed in his labors, these works, which are second to none in the State, fully attest. Mr. Boutelle's experience was of much value to the Burlington Company, and the system and arrangement of the whole is due largely to his skill.

The following description of the works, applied to their size and condition at the date of opening, June 1, 1878. Many additions have since been made.

The river work consists of an inlet crib constructed of pine timbers, firmly bolted together, filled with broken stone, placed on the bed of the Mississippi River, in nineteen feet of water at low-water mark, and distant from the shore about two hundred and fifty feet. A 20-inch iron pipe extends along the river-bed from the crib to a filter on the shore. The filter is of stone masonry, 130 feet long, 20 feet wide, and provided with suitable filtering materials, which may be renewed or cleaned at any time. An independent inlet-pipe is provided to convey water directly from the crib inlet to the pumps, should the demand at any time (as for fire protection) exceed the capacity of the filter.

The engine, boiler and coal houses, located one hundred and fifty feet from the river, are of stone, have iron roofs, are substantial and fire-proof, and of dimensions suitable for a duplicate set of pumping machinery. The smoke-stack is of brick, and 120 feet high. The Burlington, Cedar Rapids & Northern and the Burlington & Southwestern Railways run between the buildings and the river, making the delivery of coal convenient and inexpensive. The filter extends from the crib inlet, under the tracks of these railways, to a pump well inside the engine-house.

The pumping machinery is the latest design of the Holly Manufacturing Company, and embraces all recent valuable improvements. It is especially adapted to the service required, and in finish and workmanship cannot be excelled. The engine is of the compound type, and guaranteed to perform a duty equal to raising 60,000,000 pounds of water, one foot, with one hundred pounds of coal, and to supply the quantity of water—3,000,000 gallons daily—and throw the fire streams required by the ordinance. It has four steam cylinders, each 19 inches in diameter, 27 inches stroke, with four corresponding reciprocating pumps, each 10 inches diameter and 27 inches stroke, attached by direct connections and erected on a heavy arched double frame of iron, set at an angle of ninety degrees, one steam cylinder and its pump being placed at each of the four corners. The frame supports at its top a shaft with an overhanging crank on either end, to which the four engines are connected by ordinary connecting-rods. The cylinders and pumps are detachable at pleasure, and may be run singly, in pairs or all together, according to the demands for water-supply from time to time. The engine is provided with the usual air-pump and jet-condenser, and by a peculiar arrangement of pipes and valves may be run on either the high, low or compound steam-pressure principles, and may be changed from one to the other at any moment by the engineer. This arrangement is necessary to secure economical daily pumping for domestic sup-

ply, which is done by compounding steam, and prompt increase of power for efficient fire protection, which is amply secured by converting the machine into a high-pressure engine. When compounding, the steam is taken directly from the boilers into one of the cylinders and exhausted into the remaining three, and, when running, high-pressure steam is taken directly into all of the cylinders, the latter operation increasing the power of the whole four to eight times. To supply this increase, reserve boilers are provided, there being three in all, either of which alone will be sufficient to meet the ordinary demand.

The water-mains are of cast-iron, tested at the foundry to withstand three hundred pounds hydrostatic pressure per square inch, and have since been subjected to a further test, after being laid in the ground, of two hundred pounds, which is 25 per cent greater than will be required in practice. The lengths and sizes of mains were, in round numbers, as follows: One-third of a mile of 16-inch, one mile and a half of 12-inch, two miles of 10-inch, four and three-quarters miles of 8-inch, two and a half miles of 6-inch and one mile and three-quarters of 4-inch, a total of a little over twelve miles and a half of street mains. The mains are all laid to a depth of five and a half to six and a half feet below the surface, and some two miles are laid in trenches cut in solid rock. Additional mains are already petitioned for by the citizens.

The fire hydrants are of the Holly patent, full size, with double discharge and frost jacket. There were 157 in all, giving 314 hose attachments, one hydrant being placed at each street-crossing on the lines of the mains, with a hydrant between in some instances. The stop gates or valves are 64 in number, of the Eddy patent. These are placed in the mains at suitable points for shutting off water in case of necessity or convenience, from any of the lines.

On Wednesday, May 29, at 10:30 A. M., was begun a "duty test" of the works, to ascertain whether the Holly machinery would fulfill certain economic requirements of the ordinance. The engines are required to raise 60,000,000 pounds of water one foot with each one hundred pounds of coal, while pumping at the rate of 3,000,000 gallons of water in twenty-four hours. The machinery was worked twenty-four hours without stopping. It had not been used for the previous twelve hours, and the coal was of inferior quality. The following official figures show the result, which was entirely satisfactory throughout:

Number of steam-cylinders	4
Number of pumps	4
Diameter of steam-cylinders, in inches	19
Diameter of pump-pistons, in inches	10 1-32
Length of stroke, in inches	27
Discharge of four pumps each revolution, in gallons	72 1-8
Duration of test	24 hrs. 17 min.
Number of revolutions	45,812
Average pressure on water-gauge, in pounds	86 2-10
Average height from water in well to gauge, in feet	27
Total head of water equal to feet	226
Coal burned, in pounds	8,730
Duty, in pounds, raised one foot per one hundred pounds of coal	71,514,000

The contract required 60,000,000-foot pounds duty, which was exceeded by nearly 20 per cent.

The quantity of water pumped during the run was 3,204,240 gallons, which was at the rate of 3,166,704 gallons for twenty-four hours, or 5 per cent in excess of contract guarantee.

The final test of the works was made May 31. In spite of a heavy storm of wind and rain, the company carried out their programme with the following results:

On the West Hill six streams were thrown, but only two of them could be measured because of the rain. The average height of these hydrants was 130

feet above the pumps. The streams were as follows: Corner of Valley and Marshall streets, 105 feet; corner of Market and Marshall streets, 132 feet. On the North Hill, one of the highest points in the city, the requirement by contract was 75 feet. The average height of the hydrants was 150 feet above the pumps, and the exact measurement of the height of each stream as taken was as follows:

	Feet.
Corner of Iowa and Fifth streets	86
Corner of Iowa and Sixth streets	94
Corner of Iowa and Seventh streets	84
Corner of Franklin and Sixth streets	100
Corner of Franklin and Seventh streets	102
Corner of Spring and Seventh streets	115

The third test on the programme commenced at 11:15 A. M., and was a display of three streams on each, North, West and South Hills (in all nine streams). By this time the rain had ceased, and at each hydrant where the streams were thrown crowds of spectators began to congregate. This trial was not one of the contract tests, but was merely given to show that the Holly engines could exceed their rated capacity. The height of the nine streams exceeded the height required for six streams on the high ground. The average height of these streams above the pumps was 140 feet. But three streams were measured, the average height being over 90 feet.

The fourth test commenced at 11:45 A. M., and consisted of one 1-inch stream thrown through 500 feet of hose for fifteen minutes. This trial took place at the hydrant at the corner of Summer and Louisa streets, which is 155 feet above the level of the pumps. The water was thrown to a height of 85 feet. This was considered by the Holly Company officials the most gratifying trial of the forenoon exhibition. At the close of this test, an intermission of two hours was had, and the remainder of the trials occurred on the low ground in the business part of the city.

At 2 o'clock, the fifth test occurred, which was one of the contract tests, and consisted of eight 1-inch streams thrown at one time on the low ground of the city. By this time the clouds had nearly all passed away; the sun shone out brightly, and the streets and sidewalks were crowded with spectators. The contract required that these eight streams should be thrown 100 feet high. The average height reached was 141 feet and 9 inches. The streams at different hydrants varied considerably, which was owing to some of the nozzles being imperfect, as the water pressure at the hydrants was the same. The highest point during this test was the hydrant at the corner of Market and Sixth streets, and the water here was thrown 147 feet high. The height of all these streams was as follows:

	Feet.
Corner of Main and South streets	119
Corner of Main and Locust streets	146
Corner of Main and Angular streets	144
Corner of Main and Washington streets	178
Corner of Division and Fourth streets	127
Corner of Market and Sixth streets	147
Corner of Jefferson and Third streets	119
Corner of Jefferson and Fourth streets	154

The next test was a display of twelve 1-inch streams from eight hydrants on Main street and four on Jefferson street. This trial lasted only twenty minutes, and was stated by the engineer at the works to be the most severe trial during the day. From the corner of Main and Jefferson streets the whole number of streams could be seen. But three of these streams could be measured, the

average height of which was 126 feet. This is about equal to the other streams thrown at the same time.

At twenty minutes past 4, one of the grandest displays of the day occurred, at the Congregational Church tower. This was a stream thrown through a one and three-fourths inch nozzle. The water was taken from three hydrants and combined with one stream through a Siamese coupling. The church tower is 126 feet high, and as the water rose, in a solid stream, to a level with the top of the tower, the immense crowd burst out with loud cheers. But the water kept on higher and higher, until it went over 60 feet above the top of the tower, and as measured, showed that the solid stream was 190 feet high. The spray was carried up much farther.

The next was a display, lasting ten minutes, of a 1-inch stream thrown through 1,000 feet of hose. The hose was attached to the hydrant at the corner of Third and Jefferson streets. This was a severe test of the capacity of the works, and the water-pressure at the pumps during the trial was 150 pounds. The stream thrown was sufficiently high to reach any fire that is likely to occur in the city. The height of the stream could not be measured accurately, but was from 120 to 125 feet.

The last trial was a most magnificent display. A valve at the corner of Main and Jefferson streets was arranged to throw a 3-inch stream. This display commenced at 5:10 P. M., and the column of water shot up immediately to the height of 170 feet. This is said to have been the second 3-inch stream ever thrown in the world to the height attained by this. The other stream was thrown in Rome. The stream in Burlington flew up to the immense height of 283 feet. The programme stated that this stream was to be thrown for ten minutes only, but it was kept up for twice that length of time, and the immense amount of water that was thrown during the time may be known when, according to the register kept by the engineer at the pumps, 2,808 gallons of water were delivered each minute during this trial, and no other hydrant was open at the time. The wind was blowing just strong enough to let the water fall on the roofs of the houses on the west side of Main street, and the gutters on the roofs were not large enough to carry off the water, which poured from the eaves in volumes. This last test was a grand sight and a close to the proceedings of the day, and satisfied every one as to the power of Holly engines and pumps.

At the works, all moved as smoothly as a drawing-room reception. The engines and pumps worked steadily, the steam-gauges showed an even pressure and the moderate fires and leisurely movements of the firemen showed there was no "forcing" of boilers or machinery. One boiler was not used at all. The engines were worked on the compound plan, the steam entering all four cylinders at high pressure, but condensed on the other stroke, thus creating a vacuum and utilizing the atmospheric pressure. Large crowds stood around and watched the beautiful working of the machinery with undisguised admiration. The following table will tell the "expert" reader, better than descriptive language can, the work done by the machinery:

Boiler pressure during day, from	60 to 70	pounds.
Water pressure, test No. 1	150	"
Water pressure, test No. 2	140	"
Water pressure, display No. 3	130	"
Water pressure, display No. 4	145	"
Water pressure, test No. 5	115	"
Water pressure, display No. 6	120	"
Water pressure, 1¾-inch stream, Congregational Church	130	"
Water pressure, 1-inch stream, 1,000 feet hose	150	"
Water pressure, 3-inch stream	145	"

No. gallons, test No. 1	1,200	gallons per minute.
No. gallons, test No. 2	1,200	" "
No. gallons, test No 3	1,800	" "
No. gallons, display No. 4	216	" "
No. gallons, test No. 5	1,728	" "
No. gallons, test No. 6	3,000	" "
No. gallons, 1¾-inch stream, Congregational Church	850	" "
No. gallons, 8 1-inch streams. 1,000 feet hose	216	" "
No. gallons, 3-inch stream	2,808	" "
No. gallons water per day	3,000,000 to 5,000,000	

Since the foregoing description was prepared, which was an accurate account of the works at the date of opening, additions have been made to pipes and hydrants. The total number of feet of pipes now amounts to 81,590, or fifteen miles and 2,390 feet. There have been thirteen hydrants added since June 1, 1878, making the total number 170 now in use in the city.

Mr. Ira Holly was chosen Superintendent of the prospective works January, 1878, and is still discharging the duties of that responsible position to the satisfaction of all.

BURLINGTON GAS COMPANY.

June 18, 1855, Messrs. Henry W. Starr, Fitz Henry Warren, J. F. Tallant, A. W. Carpenter, W. H. Postlewait, William Thompson, J. P. Sunderland and H. B. Spelman incorporated the Burlington Gas-Light Company, and elected the following Board of Directors: Fitz Henry Warren, W. H. Postlewait, A. W. Carpenter, J. G. Lauman, H. B. Spelman. Officers: W. H. Postlewait, President; D. J. Crocker, Secretary and Treasurer; A. B. Spelman, Superintendent. W. E. Adams was Assistant Secretary and bookkeeper from 1855 to 1861. In 1857, H. B. Spelman was elected President and D. J. Crocker Secretary and Treasurer. In 1857, Charles Hendrie succeeded Mr. Postlewait as Director. In 1859, R. Spencer succeeded H. B. Spelman as Superintendent, and in the following year W. H. Postlewait succeeded F. H. Warren as Director. George C. Lauman and J. H. Gear were elected Directors in 1862 in place of J. G. Lauman and Charles Hendrie. The Board of 1864 consisted of George C. Lauman, A. W. Carpenter, John H. Gear, George Barney and R. Spencer. George Barney was elected President and R. Spencer Secretary and Treasurer. No other changes were made until 1869, when Lyman Cook, P. H. Smyth, George C. Lauman, J. H. Gear, and R. Spencer were elected Directors, and J. H. Gear, President; R. Spencer, Secretary; Henry T. Cook, Treasurer. These gentleman still constitute the management of the Company. The first ten years the Gas Company bad to struggle for existence, but with the growth of the town its business has steadily increased. Large and expensive additions have been made to the grounds, machinery, etc., doubling and, in some respects, quadrupling the capacity of the works, and mains have been extended on most of the principal streets, and still further extension of mains is expected to be made from time to time as the wants of the growing city may require. These extensions and improvements have mostly been made since 1869, under the present management.

CITY STREET RAILWAYS.

In 1871, a company was organized to build a street railway, but sufficient interest in the project not having been awakened, it fell through, and the organization collapsed.

The Burlington Street Railway is the pioneer railway of the city. The enterprise was talked of as early as 1871, and the organization accomplished